FY 2015 CPO DRAFT FFO

ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY

EXECUTIVE SUMMARY

Federal Agency Name(s): Oceanic and Atmospheric Research (OAR), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce

Funding Opportunity Title: Climate Program Office FY 2015

Announcement Type: Initial

Funding Opportunity Number: NOAA-OAR-CPO-2015- NOAA-OAR-CPO-2015-2004099

Catalog of Federal Domestic Assistance (CFDA) Number: 11.431, Climate and Atmospheric Research

Dates: Full applications for all Competitions must be received by 5:00 p.m. Eastern Time, TBA.

1. Letters of Intent
Letters of Intent for all Competitions should be received electronically by (DATE - TBD) 5:00 p.m. Eastern for all, except for the COM - Arctic Research Program for 2015-2020 and CVP - Understanding Arctic Sea Ice Mechanisms and Predictability competitions which are due 5:00 p.m. Eastern, Aug. 15, 2014. Applicants who have not received a response to their Letter of Intent within four weeks following the due date may contact the Competition Manager.

2. Full Applications
Full applications for all Competitions must be received by 5:00 p.m. Eastern, (DATE - TBA), except for the COM - Arctic Research Program for 2015-2020 and CVP - Understanding Arctic Sea Ice Mechanisms and Predictability competitions which are due 5:00 p.m. Eastern, Nov. 14, 2014. Applications received after this time will not be considered for funding. Applications must be submitted via grants.gov. For applications submitted through grants.gov, the basis for determining timeliness is the receipt notice including date and time issued by grants.gov.

For applicants without Internet access, please contact the CPO Grants Manager Diane Brown by mail at NOAA Climate Program Office (R/CP1), SSMC3, Room 12734, 1315 East-West Highway, Silver Spring, MD 20910 to obtain an Application Package. Please allow two weeks after receipt for a response. Hard copy submissions will be date and time stamped when they are received in the Climate Program Office. Faxed or emailed copies of applications will not be accepted.

Funding Opportunity Description: Climate variability and change present society with significant economic, health, safety, and national security challenges. NOAA advances scientific and technical programs to help society cope with and adapt to today's variations in climate and to prepare for tomorrow's. Toward this end, the agency conducts and supports climate research,

essential oceanic and atmospheric observations, modeling, information management, assessments, interdisciplinary decision support research, outreach, education, and stakeholder partnership development. These investments are key to NOAA's mission of "Science, Service, and Stewardship" and are guided by the agency's vision to create and sustain enhanced resilience in ecosystems, communities, and economies, as described in NOAA's Next Generation Strategic Plan (NGSP) (http://www.ppi.noaa.gov/ngsp/).

The NGSP outlines NOAA's long-term climate goal, with the following objectives: 1) Improved scientific understanding of the changing climate system and its impacts; 2) Assessments of current and future states of the climate system that identify potential impacts and inform science, service, and stewardship decisions; 3) Mitigation and adaptation choices supported by sustained, reliable, and timely climate services; and 4) A climate-literate public that understands its vulnerabilities to a changing climate and makes informed decisions.

Achieving the first of the NGSP climate objectives, an improved scientific understanding of the changing climate system and its impacts, requires a number of core capabilities be supported. These core capabilities can be broadly categorized to include:

- Understanding and modeling
- Observing systems, data stewardship, and climate monitoring
- Predictions and projections
- Integrated service development and decision support

These core capabilities and research efforts now allow progress to be made toward the provision of sustained, reliable, and timely climate services, focused initially on the following societal challenges identified in the NGSP:

- Climate impacts on water resources
- Coasts and climate resilience
- Sustainability of marine ecosystems
- Changes in extremes of weather and climate

Each of the Competitions announced in this Federal Funding Opportunity addresses one or more of these core capabilities or societal challenges. It is expected that applications submitted in response to this Opportunity will identify their relevance to NOAA's climate science and services by indicating which core capabilities and/or societal challenges will be addressed by the proposed work. In this regard, application abstracts must include a paragraph describing the work's relevance to the NGSP's climate goal and especially the work's relevance to the Competition being targeted.

We estimate that $11 million will be available through this Announcement in FY 2015 for approximately 100 new awards pending budget appropriations. It is anticipated that most awards will be at a funding level between $50,000 and $200,000 per year, with some exceptions for larger awards. Investigators are highly encouraged to visit the CPO website http://cpo.noaa.gov/GrantsandProjects.aspx for information prior to submitting applications.

FULL ANNOUNCEMENT TEXT

I. Funding Opportunity Description

A. Program Objective

Climate variability and change present society with significant economic, health, safety, and national security challenges. NOAA advances scientific and technical programs to help society cope with, and adapt to, today's variations in climate and to prepare for tomorrow's. Toward this end, the agency conducts and supports climate research, essential oceanic and atmospheric observations, modeling, information management, assessments, interdisciplinary decision-support research, outreach, education, and partnership development. These investments are key to NOAA's mission of "Science, Service, and Stewardship" and are guided by the agency's vision to create and sustain enhanced resilience in ecosystems, communities, and economies, as described in NOAA's Next Generation Strategic Plan (NGSP).

Fostering climate adaptation and mitigation, and, specifically, the development of an informed society anticipating and responding to climate and its impacts – is one of the primary pathways through which NOAA plans to advance its mission. The NGSP outlines NOAA's long-term climate goal, with the following objectives: 1) Improved scientific understanding of the changing climate system and its impacts; 2) Assessments of current and future states of the climate system that identify potential impacts and inform science, service, and stewardship decisions; 3) Mitigation and adaptation choices supported by sustained, reliable, and timely climate services; and 4) A climate-literate public that understands its vulnerabilities to a changing climate and makes informed decisions. NOAA works in partnership with all levels of governing structures (e.g., federal, state, tribal, regional, local), academic, private, and international research entities, and it places a substantial emphasis on productive partnerships and interactions with decision makers and other stakeholders.

Within this context, NOAA's Climate Program Office (CPO) manages competitive research programs through which NOAA funds high-priority climate science, assessments, decision support research, outreach, education, and capacity-building activities designed to advance our understanding of Earth's climate system and to foster the application of this knowledge to enable effective decisions. CPO supports research that is conducted across the United States and internationally. CPO also provides strategic guidance for the agency's climate science and services programs and supports NOAA's contributions to the U.S. Global Change Research Program (USGCRP) and its National Climate Assessment and similar international endeavors.

In seeking to advance the NGSP climate objective of an improved scientific understanding of the changing climate system and its impacts, CPO supports research that advances core capabilities in (a) observing systems, climate monitoring and data stewardship (b) understanding and modeling), (c) predictions and projections, and (d) informing decisions.

These core capabilities are, in turn, intended to advance NOAA's ability to provide sustained, reliable, and timely climate services dealing initially with the following broad, societal challenge areas: (a) climate impacts on water resources, (b) coasts and climate resilience, (c) sustainability of marine ecosystems, and (d) changes in extremes of weather and climate. CPO, therefore, supports research that addresses these societal challenges.

B. Program Priorities

CPO supports competitive research through four major Programs: Climate Observations and Monitoring (COM); Earth System Science (ESS); Modeling, Analysis, Predictions, and Projections (MAPP); and Climate and Societal Interactions (CSI). Through this Announcement, CPO's Programs are seeking applications for 10 individual competitions in FY 2015. Investigators are highly encouraged to learn more about CPO and its Programs, as well as specific Program priorities for FY 2015, prior to submitting applications. This information, along with the names and contact information of relevant Competition Managers, is provided in Program information sheets that can be found at the following website: http://cpo.noaa.gov/GrantsandProjects.aspx.

The 10 competitions covered by this Announcement are as follows:

- COM
  - Arctic Research Program for 2015-2020
- ESS
  - AC4 - Nitrogen cycle improvements in the GFDL Earth System Models
  - CVP - Climate Process Team: Understanding Processes Affecting Madden-Julian Oscillation Initiation and Propagation
  - CVP - Understanding Arctic Sea Ice Mechanisms and Predictability
- MAPP
  - MAPP - Process-oriented evaluation of climate and Earth system models and derived projections
  - MAPP - North American Multi-Model Ensemble system evaluation and application
  - MAPP - Advancing a common software modeling and data infrastructure for NOAA's global models
- CSI
  - COCA - Supporting Resilient Coastal Communities and Ecosystems in a Changing Climate: Understanding climate-related human health risks within the coastal environment.
  - RISA - The Regional Integrated Sciences and Assessments (RISA) Program is soliciting proposals to fund one RISA team in up to 6 regions of the US.
  - SARP - NIDIS: A National Drought Monitoring and Risk Management Center

1. Climate Observations and Monitoring

The Climate Observations and Monitoring (COM) Program supports projects that develop data sets and information needed to understand the climate system and then make these products available to user communities in need of them. The program documents variations in climate on time scales ranging from days to a century, and longer. The program also supports data and information development for national and international climate assessment products.

In FY 2015, CPO plans to conduct two separate competitions focused on the Arctic. The first competition is listed under COM. The second competition is listed under the Earth System Science (ESS) Program. This is a collaborative Competition with the Climate Variability Program (CVP).

- Arctic Research Program for 2015-2020:
  The Arctic Research Program supports in situ observing networks, ship-based and aircraft in situ sampling, a climate change detection activity based on data from other sources, and a data management component. The networks are: the International Arctic Buoy Program (IABP), the Arctic Sea Ice Thickness Network, the Arctic Ocean – Ecosystem, benthic fluxes Interactions Network (The RUSALCA program and the Pacific Arctic Group (PAG) coordination) and the International Arctic System for Observing the Atmosphere (IASOA). This is a call for proposals to carry out multidisciplinary and multi-Arctic-Network coordination for five years (from 2015-2020) of observations, analysis and modeling in the Pacific Arctic (within the Chukchi Sea, the East Siberian Sea, and the Arctic Ocean north of these regions). This is an opportunity to combine the goals of RUSALCA, PAG, IASOA, and sea ice observations to decipher how the changing atmosphere, ice, ocean, ecosystem and benthic flux system in the Pacific Arctic is altering in response to increasing Arctic heat flux from the northward flowing Pacific Water, the eastward flowing Atlantic Water, enhanced mixing of surface waters, and increased solar radiation changes.

2. Earth System Science

The Earth System Science (ESS) Program aims to provide a process-level understanding of the climate system through observation, modeling, research, analysis, and field studies to support the development of improved climate models and predictions.

In FY2015, the ESS Program is soliciting research proposals for the following three competitions:

- AC4 - Nitrogen cycle improvements in the GFDL Earth System Models:
  To address the current shortcomings and to improve the characterization of uncertainty in the next generation of Earth System Models (ESMs), proposals are solicited for the formation of research teams, which are expected to speed development of global ESMs by bringing together theoreticians, observationalists, process modelers and the GFDL scientists to concentrate on improving the process-level representation of nitrogen biogeochemical cycling and its anthropogenic drivers in the next generation of GFDL ESMs. The proposals must involve co-I(s) from NOAA/GFDL.
- CVP - Climate Process Team: Understanding Processes Affecting Madden-Julian Oscillation Initiation and Propagation:
  The key aim of the Climate Process Team (CPT) concept is to speed development of global coupled climate models and reduce uncertainties in climate models by bringing together small groups of theoreticians, field observationalists, process modelers and the large modeling centers to concentrate on the scientific problems facing climate models today. Proposals are solicited for Climate Process Teams (described in http://www.usclivar.org/resources/climate-model-evaluation) that will use DYNAMO data, and other observations, to identify and improve processes that affect MJO initiation and propagation in the NOAA NCEP and/or GFDL weather and climate models.
- CVP - Understanding Arctic Sea Ice Mechanisms and Predictability:
  The climate in the Arctic is rapidly changing. This is especially apparent in loss of sea and land-fast ice, rapid temperature changes, and changes in the Arctic coastal regions. It

is important for NOAA to develop a capability to skillfully and reliably predict regional variations and changes in Arctic sea ice on time scales of a few months to decades. The goal of this research is to improve future operational predictions. The CVP program invites data and model (single model, multi-model, and/or hi-resolution) experimentation and analysis that seeks to advance the understanding of Pan-Arctic sea ice interactions in any of the following areas:

- Climatic mechanisms that affect Arctic temperatures and growth and/or loss of sea ice.
- Mechanisms, predictability and prediction of regional sea ice variation and change.
- Systematic predictability of the fully coupled climate-ocean-ice system, its driving factors, its state dependence as external forcings change, and whether such predictability can be achieved in operational-like predictions.

3. Modeling, Analysis, Predictions, and Projections

The mission of the Modeling, Analysis, Predictions, and Projections (MAPP) Program is to enhance the Nation's capability to predict variability and changes in Earth's climate system. The Program focuses on the coupling, integration, and application of Earth System Models and analyses across NOAA, among partner agencies, and with the external research community. Primary objectives include: 1) improving Earth System Models, 2) supporting an Earth System Integrated Analysis capability, 3) improving methodologies for global and regional-scale analysis, predictions and projections, and 4) developing integrated assessment and prediction capabilities relevant to decision makers based on climate analyses, predictions and projections.

In FY 2015, MAPP is soliciting research proposals for the following three competitions:

- MAPP - Process-oriented evaluation of climate and Earth system models and derived projections:
  - Area A: Develop and integrate process-oriented metrics into U.S. modeling centers' diagnostic packages to support the evaluation and development of next-generation climate and Earth system models.
  - Area B: Process-level evaluation of model projections at regional scales over North America to inform confidence and use for the National Climate Assessment.
- MAPP - North American Multi-Model Ensemble system evaluation and application: Evaluate North American Multi-Model Ensemble (NMME) predictions and explore potential new applications of the NMME system to predictions.
- MAPP - Advancing a common software modeling and data infrastructure for NOAA's global models: Advancing a common modeling software infrastructure for climate and Earth system models based on the development of new Earth System Modeling Framework capabilities and applications; new approaches to interoperability and documentation; enhancements of the Earth System Grid Framework software data infrastructure.

4. Climate and Societal Interactions

The Climate and Societal Interactions (CSI) Program provides leadership on decision support research, assessments, and climate services development activities to help society adapt to a

changing climate. CSI supports both U.S.- and internationally-focused projects to facilitate community building and learning about the challenges and solutions associated with understanding and meeting the climate-related needs of decision makers.

In FY 2015, CSI is soliciting research proposals for the following three competitions:

- COCA - Supporting Resilient Coastal Communities and Ecosystems in a Changing Climate: Understanding climate-related human health risks within the coastal environment. In FY15, to continue supporting resilient communities and ecosystems grappling with a changing climate, COCA will support interdisciplinary research that improves our ability to respond and adapt to the risks to coastal ecosystem and human health within the coastal zone resulting from a changing climate.
- RISA - The Regional Integrated Sciences and Assessments (RISA) Program is soliciting proposals to fund one RISA team in each of the following regions in the US where there are ongoing RISA activities: Pacific Islands, Pacific Northwest, Intermountain West, Great Lakes, Urban Northeast, and Southeast.
- SARP and NIDIS – A National Drought Monitoring and Risk Management Center - This Center will focus on research to improve drought monitoring, impacts assessment and risk management in close partnership with the National Integrated Drought Information System (NIDIS) to benefit the drought monitoring and risk management communities across the United States and with international partners.

Information sheets containing further details and Points of Contact for each competition can be found at http://cpo.noaa.gov/GrantsandProjects.aspx.

C. Program Authority
49 U.S.C. 44720(b), 15 U.S.C. 2904, 15 U.S.C. 2931-2934

II. Award Information

A. Funding Availability

In FY 2015, approximately $15.5 million will be available for approximately 100 new awards pending budget appropriations (see section I.B above). It is anticipated that most awards will be at a funding level between $50,000 and $200,000 per year with exceptions for larger awards. Federal funding for FY 2016 may be used to fund some awards submitted under this Competition. Current or previous grantees are eligible to apply for a new award that builds on, but does not replicate, activities covered in existing or previous awards. Current grantees should not apply for supplementary funding through this announcement.

1. Climate Observations and Monitoring
It is anticipated that up to $1.5 million will be available in FY 2015 for new projects. Projects should be primarily in the $75,000-$200,000/year range, with some exceptions for larger projects.

2. Earth System Science

It is anticipated that $3.5 million will be available in FY 2015 for new projects. Projects for CVP - Understanding Arctic Sea Ice Mechanisms and Predictability should be primarily in the $75,000-$250,000/year range; for the other two ESS competitions, projects should have an upper limit of $500,000/year.

3. Modeling, Analysis, Predictions, and Projections
It is anticipated that $3.5 million will be available in FY 2015 for new projects. Projects should be primarily in the $70,000-$200,000/year range, with the exceptions according to the MAPP information sheets.

4. Climate and Societal Interactions
It is anticipated that $7 million will be available in FY 2015 for new projects. Projects for the COCA competitions should be primarily in the $50,000 - $150,000/year range. Proposals to the RISA competition should be in the $500,000 - $700,000/year range for core RISA work and $150,000-$200,000/year for accompanying sustained assessment specialists components. Proposals for the SARP - NIDIS: A National Drought Monitoring and Risk Management Center should be in the $500,000 - $850,000/year range.

For more detail on funding availability, please see the information sheets available for the individual competitions at http://www.cpo.noaa.gov/opportunities.

B. Project/Award Period
1. Climate Observations and Monitoring: Projects under COM are expected to last 1-5 years.

2. Earth System Science: Projects under ESS are expected to last 1-3 years.

3. Modeling, Analysis, Predictions, and Projections: Projects under MAPP vary within the 1-3 years range depending on the competition (refer to the individual competition information sheet for details).

4. Climate and Societal Interactions: Projects under CSI for the COCA competition are expected to between 2 years for the Supporting Resilient Coastal Communities and Ecosystems in a Changing Climate. Projects for the RISA competition are expected to last up to 5 years for core work and 3-5 years for the sustained assessment components of the projects. See information sheet for details. Projects for the SARP - NIDIS: A National Drought Monitoring and Risk Management Center should continue for 3 years with an option for up to 2 additional years (after a review).

C. Type of Funding Instrument
The funding instrument for awards will be a grant, or in the case of SARP, a cooperative agreement. If, however, it is anticipated that NOAA will be substantially involved in the implementation of the project, the grant may be administered as a cooperative agreement. Examples of substantial involvement may include, but are not limited to, applications for collaboration between NOAA scientists and a recipient scientist or contemplation by NOAA of detailing Federal personnel to work on proposed projects. NOAA will make decisions regarding the use of a cooperative agreement on a case-by-case basis. Funding for contractual

arrangements for services and products for delivery to NOAA is not available under this announcement.

If the grantee is at an institution that has a NOAA Cooperative Institute (CI), the potential grantee is encouraged to submit a proposal that references the CI by attaching a cover letter to the proposal stating his/her desire to have the proposal associated with the CI. This letter should specify the name of the cooperative institute, the CI cooperative agreement number, and the NOAA-approved research theme and task that applies to the proposal. The proposal will use the Facilities and Administrative (F&A) rate associated with main CI agreement.

If the proposal is selected for funding, NOAA will notify the university that a separate award will be issued with its own award number. However, the award will include two Special Award Conditions (SACs): (1) the existing University/NOAA Memorandum of Agreement (MOA) would be incorporated by reference into the terms of the competitive award, and (2) any performance report(s) for the competitive project must follow the timetable of the funding program and be submitted directly to the funding program. Report(s) will be copied to the CI's administrator when due, to be attached to the main cooperative agreement progress report as an appendix. This will allow the CI to coordinate all the projects submitted through the CI, since the terms of these awards will specify that this is a CI project via the MOA.

III. Eligibility Information

A. Eligible Applicants

Eligible applicants are institutions of higher education, other nonprofits, commercial organizations, international organizations, and state, local and Indian tribal governments. Federal agencies with a DUNS and EIN number may apply. Those Agencies without DUNS and EIN number can't be funded through a grant. They are eligible to be funded through an Inter-agency or Intra-agency transfer by sending a copy of the proposal to the appropriate competition manager via email.

B. Cost Sharing or Matching Requirement

None.

C. Other Criteria that Affect Eligibility

None.

IV. Application and Submission Information

A. Address to Request Application Package

Application packages are available at Grants.gov (http://www.grants.gov) "Apply for Grants." For applicants without Internet access, please contact the CPO Grants Manager Diane Brown by mail at NOAA Climate Program Office (R/CP1), SSMC3, Room 12734, 1315 East-West Highway, Silver Spring, MD 20910 to obtain an Application Package. Please allow two weeks after receipt for a response.

B. Content and Form of Application

1. Letter of Intent (LOI)
The purpose of the LOI process is to provide information to potential applicants on the relevance of their proposed project to the Climate Program Office in advance of preparing a full application. Full applications will be encouraged only for LOIs deemed relevant. While we strongly encourage interested applicants to submit an LOI, applicants are not required to do so and are allowed to submit a full application even if they have not submitted an LOI.

To complete an LOI, visit the "Letter of Intent" (LOI) entry page here:
http://cpo.noaa.gov/GrantsandProjects/LOIEntry.aspx

Correctly fill in the CAPTCHA text, a unique security code that matches the image above it. The security code is case-sensitive. (This step discourages automated responses.)

Click the "Create an LOI" button.

Fill in all blanks with the information requested.

Click the "Submit" button to submit your request.

Click the "Cancel" button to dismiss the application. You may revisit the page and start again.

If multiple submissions from one applicant are submitted with similar or the same project titles, only the most recently received LOI will be reviewed and responded to. All other LOI versions will be considered prior drafts and will not be reviewed.

LOIs should be submitted by the deadline specified in section IV.C below. The LOI should provide a concise description of the proposed work and a statement regarding its relevance to the targeted Competition. The LOI should include the items listed below. If these items are not included or the LOI is submitted late, the LOI may not be considered:

- Identification of the Competition that is being targeted in the LOI.
- A tentative project title.
- Name(s) and institution(s) of the Lead Principal Investigator(s) and other Principal Investigator (s).
- Statement of the problem.
- Brief summary of work to be completed, methodology to be used, data sets needed or to be collected, and approximate cost of the project.
- Relevance to the Competition that is being targeted.

A response to the LOI from the Climate Program Office (e-mail or letter) will be sent to the investigator within four weeks after the LOI's due date encouraging or discouraging a full application on the basis of its relevance to the targeted Competition. The final decision to submit a full application will be made by the investigator.

2. Full Application
Failure to comply with these provisions will result in applications being returned without review. Full applications are limited to 35 pages using 12-point font type with one-inch margins on

standard 8.5 by 11 inch paper. For full applications with three or more Principal Investigators, the page limit is increased to 40. The page limit includes the title page, abstract, results from prior research, statement of work, budget justification, budget table, vitae, current and pending support, associated figures, references, and appendices. For applications to the MAPP Competitions, the form to request the use of NOAA's high-performance computing platforms is considered part of the full proposal, but it will not be included in the page count. For the RISA and SARP- NIDIS Center competitions, budget tables, budget justifications, and subcontract information are not included in the page count.

The full proposal, NEPA statement and Indirect Cost Rate Agreement (IDCRA) should be put into one electronic file. The budget table/justification should be submitted in a file labeled budget narrative. The Federal Forms (SF424, SF424A, SF424B, CD511), and other mandated forms should be inserted in separate files when submitted and are not included in the page count.

The following forms and elements are required in each application.

(1) Title page: The title page shall identify the Principal Investigator(s) (PI) and institutional representative and clearly indicate which Competition is being addressed by name and Competition number. The title page should also include co-PIs from Federal Institutions. If more than one investigator is listed on the title page, please identify the lead investigator. The lead PI and institutional representative should be identified by: full name, title, organization, telephone number, email, and address. For paper submissions, the lead PI and the institutional representative must sign the title page. The total amount of Federal funds being requested should be listed for each budget period. If there are several institutions submitting separate applications associated with the same project, the names of all component institutions along with their lead PI name, e-mail, and amount requested per year must also appear on the title page of all applications that anticipate being funded under the same project.

(2) Abstract: A one-page abstract must be included and should contain an introduction to the problem, rationale, and a brief summary of the work to be completed. Abstracts must identify the name of the Competition that is being targeted and must also include a paragraph describing the work's relevance to the Competition that is being targeted as well as NOAA's long-term climate goal as described in NOAA's Next-Generation Strategic Plan (NGSP; see section I.A). For multiple applications associated with the same project, the abstract must be identical in all applications. Failure to include this paragraph can result in the application being denied without additional review.

(3) Results from prior research: The results of each prior research project led by the Principal Investigator(s) during the last three years relevant to the proposed effort should be summarized in brief paragraphs. Because NOAA believes it important that data sets developed with its support should be shared with the scientific community, PIs should also indicate how and when they have made their data accessible and useable by the community in the past. This section should not exceed two pages. For multiple applications associated with the same project, this section must be identical in all applications.

(4) Statement of work: The proposed project must be completely described, including identification of the problem, scientific objectives, proposed methodology, and relevance to the Competition to which you are submitting the proposal and to NOAA's long-term climate goal. Benefits of the proposed project to the general public and the scientific community should be discussed. The statement of work, excluding references, figures, and other visual materials, must not exceed 15 pages of text. Applications from three or more investigators may include a statement of work containing up to 20 pages of overall project description. For the RISA and SARP - NIDIS Center competitions, the statement of work including references and figures should be no more than 25 pages. For multiple applications associated with the same project, all applications must have an identical statement of work, including a clear statement of the roles and responsibilities of each applicant. For the RISA competition, only one application per team will be accepted.

(5) Data/Information Sharing Plan: Environmental data and information collected and/or created under NOAA grants/cooperative agreements must be made visible, accessible, and independently understandable to general users, free of charge or at minimal cost, in a timely manner (typically no later than two years after the data are collected or created), except where limited by law, regulation, policy or security requirements. To satisfy this requirement, a Data/Information Sharing Plan of no more than two pages is required. A typical plan should include descriptions of the types of environmental data and information created during the course of the project; the tentative date by which data will be shared; the standards to be used for data/metadata format and content; policies addressing data stewardship and preservation; procedures for providing access, sharing, and security; and prior experience in publishing such data. The Data/Information Sharing Plan (and any subsequent revisions or updates) must be made publicly available at time of award and, thereafter, will be posted with the published data. Failing to share environmental data and information in accordance with the submitted Data/Information Sharing Plan may lead to disallowed costs and be considered by NOAA when making future award decisions.

(6) Budget Table and Justification:
Budget Table: An itemized budget for all years and a total itemized budget must be included as a separate spreadsheet that breaks down the budget per object class category. Travel must be itemized to include destination, airfare, per diem, lodging, and ground travel.

For multiple applications associated with the same project, the Lead Principal Investigator should include a spreadsheet that displays the total budget for all partners. All partners, including the Lead Principal Investigator and any co-PIs from Federal Institutions, should include a separate budget for their portion of the project.

Budget Justification: A brief description of the expenses listed on the budget table and how they address the proposed work. Item justifications must include salaries, equipment, publications, supplies, tuition, travel, etc. Investigators who will not be requesting funds for salaries must also be listed, indicating their estimated time of commitment. Purchases of equipment greater than $5000 must include a purchase versus lease justification. Note that the budget table and justification are considered part of the required 35-page limit, 40 pages for applications with three or more PIs, or 45 pages for the RISA and SARP - NIDIS Center competitions.

(7) Federal Budget Forms: Budget numbers corresponding with the descriptions contained in the statement of work and budget table must be included. In addition to including the total budget on the SF424, the application must include the total budget and budgets for years 1, 2, and 3 in separate columns in Section B on page 1 on the SF424A. (Note that this revised 424A Section B format is a NOAA requirement that is not reflected in the Instructions for the SF 424A). For the RISA competition, submit two SF424A forms, one for years 1-4 and the second for year 5. Note that these forms are not part of the required page limit.

For multiple applications associated with the same project, each application requesting funding from NOAA needs to complete the federal budget forms for their specific institution. For the RISA competition, only one application per team will be accepted.

(8) Indirect Costs: A copy of the institution's current Indirect Cost Rate Agreement (IDCRA) must be included. The IDCRA does not, however, count as part of the required page limit. To obtain an indirect cost rate if your institution does not already have one, a grantee must submit an indirect cost proposal to its cognizant agency and negotiate an indirect cost agreement.

(9) Vitae: Abbreviated curriculum vitae are requested with each application. Reference lists should be limited to all publications in the last three years with up to five other relevant papers. For multiple applications associated with the same project, each application should include identical vitae for all applications. For the RISA and SARP - NIDIS Center competitions, short (1- or 2-page) bios of the main investigators are sufficient.

(10) Current and pending support: For each Principal Investigator and Co-Principal Investigator(s), submit a list of all current and pending Federal support that includes project title, supporting agency with grant number, investigator months per year, dollar value, and duration. Requested values should be listed for pending support. For the RISA and SARP - NIDIS Center competitions, only lead investigators need to list current and pending. All letters of support must be submitted as part of the proposal.

For multiple applications associated with the same project, each application should include identical current and pending support information for all applications.

(11) DUNS Number: All applications must have a DUNS (Dun and Bradstreet Data Universal Numbering System) number when applying for federal grants. No application is deemed complete without the DUNS number, and only the Office of Management and Budget (OMB) may grant exceptions.

(12) National Environmental Policy Act (NEPA): NOAA must analyze the potential environmental impacts, as required by the National Environmental Policy Act (NEPA), of each applicant's project that is seeking NOAA federal funding opportunities. Detailed information on NOAA's compliance with NEPA can be found at the following NOAA NEPA website: http://www.nepa.noaa.gov/, including the NOAA Administrative Order 216-6 for NEPA, http://www.nepa.noaa.gov/NAO216_6_TOC.pdf, and the Council of Environmental Quality implementation regulations, http://ceq.eh.doe.gov/nepa/regs/ceq/toc_ceq.htm.

No NEPA information is required with the initial application. However, after review of the application, NEPA information may be requested if NOAA determines such information is required.

Consequently, applicants may be required to provide detailed information on the activities to be conducted, locations, sites, species, and habitat to be affected, possible construction activities, and any environmental concerns that may exist (e.g., the use and disposal of hazardous or toxic chemicals, introduction of non-indigenous species, impacts to endangered and threatened species, aquaculture projects, and impacts to coral reef systems). In addition to providing specific information that will serve as the basis for any required impact analyses, applicants may also be requested to assist NOAA in drafting an environmental assessment, if NOAA determines an assessment is required.

Applicants may also be required to cooperate with NOAA in identifying feasible measures to reduce or avoid any identified adverse environmental impacts of their application. The failure to do so shall be grounds for not selecting an application. In some cases if additional information is required after an application is selected, funds can be withheld by the Grants Officer under a special award condition requiring the recipient to submit additional environmental compliance information sufficient to enable NOAA to make an assessment on any impacts that a project may have on the environment.

C. Submission Dates and Times
Letters of Intent for all Competitions should be received by the Competition Manager via electronically via the Internet and by email by (DATE - TBD) 5:00 p.m. Eastern for all, except for the COM - Arctic Research Program and CVP - Understanding Arctic Sea Ice Mechanisms and Predictability competitions, which are due 5:00 p.m. Eastern, Aug. 15, 2014. Applicants who have not received a response to their Letter of Intent within four weeks following the due date should contact the Competition Manager.

Full applications for all Competitions must be received by 5:00 p.m. Eastern Time, (DATE – TBA) except the COM - Arctic Research Program for 2015-2020 and CVP - Understanding Arctic Sea Ice Mechanisms and Predictability competition are due 5:00 p.m. Eastern Nov. 14, 2014. Faxed or emailed copies of applications will not be accepted.

D. Intergovernmental Review
Applications under this program are not subject to Executive Order 12372, Intergovernmental Review of Federal Programs.

E. Funding Restrictions
Fees and profit are disallowed.

F. Other Submission Requirements

1. Full Application
If an applicant does not have Internet access, CPO Grants Manager Diane Brown should be contacted by mail at NOAA Climate Program Office (R/CP1), SSMC3, Room 12734, 1315 East-

West Highway, Silver Spring, MD 20910 for hard copy submission instructions. Please allow two weeks after receipt for a response.

In order to submit an application through Grants.gov, an applicant must register for a Grants.gov user ID and password. Note that this process can take between three to five business days or as long as four weeks if all steps are not completed correctly. To avoid delays, applicants are strongly encouraged to start early and not wait until the approaching application deadline before registering, logging in, reviewing the application instructions, and applying. Information about the Grants.gov registration process for organizations can be found at http://grants.gov/applicants/organization_registration.jsp.

Please note that organizations already registered with Grants.gov do not need to re-register; however, all registered organizations must keep their Grants.gov password and SAM database (which now incorporates CCR) registration up-to-date or their applications will not be accepted by Grants.gov. Note that your CCR username will not work in SAM; you must create a new SAM user account to renew or update your registration. Registration in SAM is a requirement and must be completed in order to submit an application in grants.gov. To obtain additional information and to verify that all required registrations are current, please visit www.sam.gov/portal/public/SAM.

If you experience a Grants.gov systems issue (technical problems or glitches with the Grants.gov website) that you believe threatens your ability to complete a submission before the application deadline, please do all of the following:

- Print any error message received
- Call the Grants.gov Contact Center at 1-800-518-4726 for immediate assistance
- Contact NOAA using the contact information in section VIII. of this FFO prior to the close of the competition
- Ensure that you obtain a case number regarding your communications with Grants.gov

In the event of a confirmed systems issue, NOAA reserves the right to accept an application in an alternate format prior to the application deadline. Problems with an applicant organization's computer system or equipment are not considered systems issues. Similarly, an applicant's failure to do the following are not considered systems issues:

- Complete the required registration
- Ensure that a registered AOR submits the application
- Read an email message with guidance from Grants.gov

V. Application Review Information

A. Evaluation Criteria

1. Importance/Relevance and Applicability of Application to the Program Goals (Stage 1 Weight 0%) (Stage 2 Weight = 100%) (Final Weight= 25%)

This criterion ascertains whether there is intrinsic value in the proposed work and/or relevance to NOAA, federal, regional, state, tribal, or local activities. For the CPO Grant Program Competition, this includes importance and relevance to the scientific priorities of the selected

Competition(s). The PI's record of making his/her data accessible and useable by the scientific community in the past, and the procedures described in Section IV.B(5) Data/Information Sharing Plan will also be considered when evaluating the importance and relevance of the application. For the CSI competitions, the above stated relevance score will also include the applicant's approach for engaging decision makers and building networks of relationships to help support decision makers with scientific information.

2. Technical/Scientific Merit (Stage 1 Weight = 70%) (Stage 2 Weight = 0) (Final Weight =52.5%)
This criterion assesses whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether the goals of the Competition will be realized through clear project goals and objectives. For CSI competitions, the above stated merit score will also include the applicant's credibility in capacity-building approaches. For RISA, the score will include how well the proposal clearly identifies an institutional framework for implementing the research articulated. (See the CSI information sheet for more details.)

3. Overall Qualifications of Applicants (Stage 1 Weight =20%) (Stage 2 Weight = 0) (Final Weight = 15%)
This criterion assesses whether the applicant team possesses the necessary education, experience, training, facilities, and/or administrative resources to accomplish the project. For CSI competitions, the above stated qualifications score will also include the PIs' record of collaborating with decision-making communities.

4. Project Costs (Stage 1 Weight = 10%) (Stage 2 Weight = 0) (Final Weight =7.5%)
This criterion evaluates the budget to determine if it is realistic and commensurate with the project needs and time frame.

5. Outreach and Education (Stage 1 Weight = 0%) (Stage 2 Weight = 0) (Final Weight =0)
This criterion assesses whether the project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources. For the CPO Grant Program Competitions, this criterion is not scored.

B. Review and Selection Process
Once a full application has been received, an administrative review will be conducted to determine compliance with requirements and completeness of the application. The reviews will take place in two stages. In Stage 1, independent peer mail reviewers and/or independent peer panel reviewers consisting of both Federal and/or non-Federal experts will evaluate applications using the following three criteria described above: technical/scientific merit, overall qualifications of applicants, and project costs. Relevance will be assessed separately in Stage 2. The panel will not give consensus advice. We protect the identities of reviewers to the extent permitted by law.

During Stage 1, each reviewer will provide one score for each of three criteria: technical/scientific merit, overall qualifications of applicants, and project costs for each application. The scores from the reviewers for each application will be combined using the weighting averages to produce a single numerical score for Stage 1. Occasionally a reviewer

may, due to lack of familiarity in a particular area, choose not to score a particular application. Proposals that score a 3.0 or higher (out of a possible high score of 5) in Stage 1 will proceed to Stage 2.

If only a mail peer review is conducted for stage 1, proposals that score a 3.0 or higher (out of a possible high score of 5) in Stage 1 will proceed to Stage 2.

If a mail review and a panel review are both conducted for Stage 1, the mail reviews will be provided to the Stage 1 review panel for use in its deliberations prior to providing its ratings, but the Competition Manager will use only the numerical rank order of the peer review panel to determine the average score for each proposal. Proposals that score a 3.0 or higher (out of a possible high score of 5) in Stage 1 will proceed to Stage 2.

In Stage 2, scores for Importance/Relevance and Applicability of Application to the Program Goals will be determined by a second panel comprising either Federal or a combination of Federal and non-Federal partners. Each panel reviewer will provide a relevance score for each application that moved forward from Stage 1. The Stage 2 panel will not give consensus advice. The applications and their associated scores from Stage 1 will be provided to the Stage 2 panel.

The Stage 1 and Stage 2 weighting of scores for the individual criteria is shown in the following table:

Criterion	Stage 1 Weight	Stage 2 Weight	Final Weight
Importance and Relevance/Applicability	0%	100%	25%
Technical/Scientific Merit	70%	0%	52.5%
Overall Qualifications of Applications	20%	0%	15%
Project Costs	10%	0%	7.5%
Outreach and Education	0%	0%	0%
Stage Total	100%	100%	100%
Final weighting for each stage score	75%	25%	100%

To determine the final score, the scores from Stage 1 and Stage 2 will be combined, with a weighting of 75% for the Stage 1 score and 25% for the Stage 2 score, leading to the overall weightings for each criterion reported in section V.A above. The final score for each application will be used to determine the numerical rank order of proposals within each Competition.

The Competition Manager will recommend applications to the Selecting Official in numerical rank order unless a recommendation out of rank order is justified based upon any of the factors listed in the following section. Should applications receive a tie score, and funding is not available for every tied application, the Competition Manager may preferentially recommend applications for funding also according to any of the factors listed in the following section. The Competition Manager will review the amounts requested for each selected application (including

costs for computing and networking services) and recommend the total duration and the amount of funding, which may be less than the application and budget requested.

C. Selection Factors
The Selecting Official shall select awards in rank order unless a selection out of rank order is justified based upon any of the following factors:

- Availability of funding
- Balance/distribution of funds:
    - Geographically
    - By type of institutions
    - By type of partners
    - By research area
    - By project types
- Duplication of other projects funded or considered for funding by NOAA/Federal agencies
- Program priorities and policy factors
- Applicant's prior award performance
- Partnerships with/participation of targeted group
- Adequacy of information necessary for NOAA staff to make a NEPA determination and draft necessary documentation before recommendations for funding are made to the Grants Officer.

The Selecting Official makes final recommendations for awards to the Grants Officer who is authorized to obligate the funds.

D. Anticipated Announcement and Award Dates
Subject to the availability of funds, review of applications will occur during the 6-7 months following the full applications due date. CPO anticipates that funding decisions on applications will be made during Spring 2015. Such decisions are contingent upon the final FY 2015 appropriation for NOAA by Congress and the final allocation of funds to CPO by NOAA. Funding for successful applicants is expected to begin during spring-summer 2015 for most approved projects. Applications should use August 1, 2015, as the start date unless otherwise directed by the Competition Manager.

VI. Award Administration Information

A. Award Notices

Grants Officer (Office) will provide notice to the applicant that they have received the award. This is the official notification of funding, signed by a NOAA Grants Officer, is the authorizing document that allows the project to begin. Notifications will be issued to the Authorizing Official and the Principal Investigator of the project. Unsuccessful applicants will be notified that their application was not selected for recommendation.

B. Administrative and National Policy Requirements
The Department of Commerce Pre-Award Notification Requirements for Grants and Cooperative Agreements contained in the Federal Register notice of December 17, 2012 (73 FR 74634) is applicable to this solicitation.

Limitation of Liability: In no event will NOAA or the Department of Commerce be responsible for application preparation costs. Publication of this announcement in no way obliges NOAA to award any specific project or to obligate any available funds.

National Environmental Policy Act (NEPA): The National Environmental Policy Act is applicable to the Notice. See Section IV above for the necessary information.

C. Reporting
Award recipients are required to submit financial and technical progress reports. These reports are to be submitted electronically via https://grantsonline.rdc.noaa.gov. The first technical progress report covering the first nine months of a multi-year award is due 10 months after the start date of the award. Each subsequent technical progress report covering a period of 12 months is due 12 months after the previous report. The comprehensive final technical progress report is due 90 days after the expiration date of the award.

Unpaid or Delinquent Tax Liability: In accordance with current Federal appropriations law, NOAA will provide a successful corporate applicant a form to be completed by its authorized representatives certifying that the corporation has no Federally-assessed unpaid or delinquent tax liability or recent felony criminal convictions under any Federal law.

The Federal Funding Accountability and Transparency Act of 2006: This Act includes a requirement for awardees of applicable Federal grants to report information about first-tier sub-awards and executive compensation under Federal assistance awards issued in FY 2011 or later. All awardees of applicable grants and cooperative agreements are required to report to the Federal Sub-award Reporting System (FSRS) available at www.FSRS.gov on all sub-awards over $25,000.

VII. Agency Contacts

Please visit the CPO website for further information http://www.climate.noaa.gov/ or contact the CPO Grants Manager, Diane Brown, by mail (see address above) or at <diane.brown@noaa.gov>. Please allow up to two weeks after receipt for a response.

VIII. Other Information

None.